Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-10. (Canceled)

11. (Currently Amended) Machine readable media having stored therein a set of instructions that when executed cause a computer to implement a process for ~~A method of~~ determining a probability of an adverse event in connection with a plurality of loans, the plurality of loans having varying amounts of loan data available, the process ~~method~~ comprising:

constructing a first mathematical model for use with loans for which loan data is available for a set of explanatory variables, the set of explanatory variables including variables that relate to risk characteristics of the loan, risk characteristics of collateral for the loan, and risk characteristics of a borrower associated with the loan;

constructing a second mathematical model for use with loans for which at least some of the loan data for the set of explanatory variables is not available, including

estimating the probability of the adverse event for a first group of loans for which the loan data is available for the set of explanatory variables using the first mathematical model,

iteratively estimating the probability of the adverse event for the first group of loans using the second mathematical model,

selecting an optimal set of weighting coefficients for the second mathematical model, the optimal set of coefficients being selected so as to minimize errors in outputs generated by the second mathematical model for the first group of loans relative to outputs generated by the first mathematical model for the first group of loans, and

storing a set of error values, the set of error values relating to the errors in the outputs generated by the second mathematical when using the optimal set of coefficients relative to the outputs generated by the first mathematical model; and

estimating the probability of the adverse event for a second group of loans using the second mathematical model, wherein at least some loan data for the set of explanatory variables is not available for the second group of loans, and wherein estimating the probability of the adverse event for the second group of loans includes randomly drawing error values from the set of error values and adjusting the outputs of the second mathematical model for the second group of loans in accordance with the randomly drawn error values, the randomly drawn error values causing a distribution of the probability values produced by the second mathematical model for the second group of loans to more closely match a distribution of the probability values produced by the first mathematical model for the first group of loans.

12. (Currently Amended) The machine-readable media [[method]] of claim 11, wherein the adverse event is delinquency.

13. (Currently Amended) The machine-readable media [[method]] of claim 11, wherein the adverse event is default.

14. (Currently Amended) The machine-readable media [[method]] of claim 11, wherein the adverse event is prepayment.

15. (Currently Amended) The machine-readable media [[method]] of claim 11, wherein storing the set of error values includes partitioning the error values into different partition groups, each respective error value being partitioned according to a length of time of delinquency of a corresponding one of the loans.

16. (Currently Amended) The machine-readable media [[method]] of claim 11, wherein the set of explanatory variables includes a credit premium, the credit premium reflecting a premium

paid by a borrower in a note rate of the loan as compared to an average note rate of similar loans made to other borrowers.

17-19. (Canceled)

20. (Currently Amended) Machine readable media having stored therein a set of instructions that when executed cause a computer to implement a process comprising: ~~A method for determining a probability of an adverse event in connection with a loan for which loan data is unavailable for at least one of a predetermined set of loan parameters, the method comprising:~~

estimating a first set of weighting coefficients for a first mathematical model by performing a first regression operation, the first mathematical model being a function of a [[the]] predetermined set of loan parameters and the first set of weighting coefficients, the first set of weighting coefficients being associated with respective ones of the predetermined set of loan parameters, the first regression operation optimizing the first set of weighting coefficients based on performance history of a first plurality of loans, the first plurality of loans having loan data available for the predetermined set of loan parameters;

estimating a second set of weighting coefficients for a second mathematical model by performing a second regression operation, the second model being a function of only a subset of the predetermined loan parameters and the second set of weighting coefficients, the second set of weighting coefficients being associated with respective ones of the subset of the predetermined set of loan parameters, the second regression operation causing the second mathematical model to produce a probability distribution which is in overall alignment with a probability distribution produced by the first mathematical, the second mathematical model further being a function of a set of stored error values relating to errors in probabilities produced by the second mathematical model as compared to probabilities produced by the first mathematical model; and

determining the probability of the adverse event using the second mathematical model in connection with a second plurality of loans, including ~~performing a random~~

~~draw of an error value from the set of stored error values,~~ randomly drawing error values from the set of error values and adjusting the outputs of the second mathematical model for the second plurality of loans in accordance with the randomly drawn error values, the randomly drawn error values causing a distribution of the probability values produced by the second mathematical model for the second plurality of loans to more closely match a distribution of the probability values produced by the first mathematical model for the first group of loans.

21. (Currently Amended) The machine-readable media [[method]] of claim 20, wherein the errors are partitioned into categories according to length of loan delinquency.

22. (Currently Amended) The machine-readable media [[method]] of claim 20, wherein the set of loan parameters includes a credit premium, the credit premium reflecting a premium paid by a borrower in a note rate of the loan as compared to an average note rate of similar loans made to other borrowers.

23. (Currently Amended) The machine-readable media [[method]] of claim 22, wherein the credit premium is determined by starting with an initial note rate, adjusting the initial rate up and/or down in accordance with variables associated with the mortgage loan to arrive at a predicted note rate, and comparing the predicted note rate with a note rate paid by the borrower to arrive at the credit premium.

24-32. (Canceled)